
Pretest

Grade 3 • Science



Student Test Booklet

FOCUScurriculum

Publishing to Indiana's Content Standards

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33 Milford Drive, Suite 1

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(330) 656-9008

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Grade 3 Science Pretest

Indiana's Academic Standards for Science Tested with Answers

Item	Standard	Answer
1	3.1.2	C
2	3.1.3	Yes, because sound is transmitted through liquids.
3	3.1.4	Light travels in a straight line.
	3.1.5	The light is absorbed by the object.
4	3.1.6	C
5	3.2.2	D
6	3.2.3	B
7	3.2.4	B
8	3.2.1	Rock number: 1
	3.2.1	texture
	3.2.1	Property: luster
9	3.2.5	Answers may include such things as plants, animals, water, minerals, fossil fuels, and other natural resources.
10	3.2.5	Answers may include soil, water, and light.
11	3.2.6	Answers may include such things as plants, animals, water, minerals, fossil fuels, and other natural resources and explain how people use them to survive, to make work easier, or for pleasure.
12	3.3.1	D
13	3.3.2	C
14	3.3.2	measuring cup and ruler or tape measure
		The data supports Ted's prediction because the plants in pot A grew taller than the plants in pot B.
		Ted's classmate should repeat the experiment, record the observations, and compare them to Ted's. The student should then share the results with others.
		Conclusion may include the plants in pot A grew taller than the plants in pot B. The plants in pot B continued to grow, but not at the same rate as the plants in pot A. The plants grew at the same rate during the first three weeks.
15	3.3.2	B
16	3.4.2	lever

Print Pages 4 through 12 for the Students Test Booklet.

GRADE 3

3

SCIENCE PRETEST

Student Name _____

School Name _____

Print your name and the name of your school on the lines above.

This test contains 8 multiple-choice questions. Record your answers to these questions on the separate answer sheet. Use only a No. 2 pencil on your answer sheet.

This test consists of 8 extended response items. Write your answers to these on the lines provided in the test booklet.

You will have as much time as you need to answer the questions.

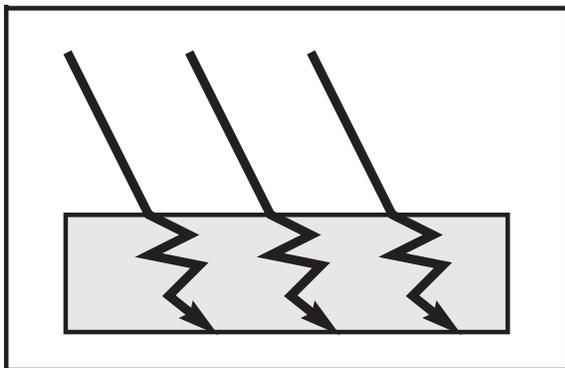
DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

1. If you pluck a guitar string that is pulled tight, you produce a higher pitched sound than if you pluck a looser guitar string. What determines the pitch of a sound?

- A. the wavelength of sound
- B. the amplitude of sound
- C. the frequency of sound
- D. the reflection of sound

2. You are swimming underwater in a pool and a friend shouts to you. Will you be able to hear your friend? Explain why or why not.

3. The illustration below shows light hitting an object.



Explain how light travels before it hits an object.

Explain what happens to the light after it hits this object.

4. Light and sound are both

- A. able to be seen
- B. able to be heard
- C. forms of energy
- D. forms of matter

5. Juan finds a rock and wants to know what type it is. What information about the rock will best help him identify it?

- A. the size of the rock
- B. the weight of the rock
- C. the temperature of the rock
- D. the minerals the rock contains

6. A mineral that looks shiny is metallic. A mineral that is not shiny at all is nonmetallic. What is this property called?

- A. streak
- B. luster
- C. cleavage
- D. specific gravity

7. A fossil is a type of

- A. mineral
- B. rock
- C. animal
- D. plant

8. Raul was observing four rock samples she collected. He classified the rocks and recorded his observations in a table shown below.

Rock	Property			
	A. Luster	B. Specific Gravity	C. Color	D. _____
1	Metallic but dull	1.2	gray	rough
2	Metallic and shiny	2.3	black	smooth
3	Nonmetallic and pearly	2.6	white	smooth
4	Nonmetallic and dull	1.7	pink	rough

Which rock has the lowest specific gravity?

Rock number: _____

Identify property *D*.

The rocks can be sorted by their properties. Identify the property used to sort the rocks shown below.

Group 1
1, 2

Group 2
3, 4

Property: _____

9. People, animals, and plants used natural resources. Name TWO natural resources.

10. Identify TWO natural resources that plants use to survive.

11. Identify TWO natural resources people use and explain how they are useful to people.

12. One function of a plant's roots is to

- A. produce fruit containing seeds
- B. use sunlight to make food
- C. store food for germination
- D. take in water and nutrients

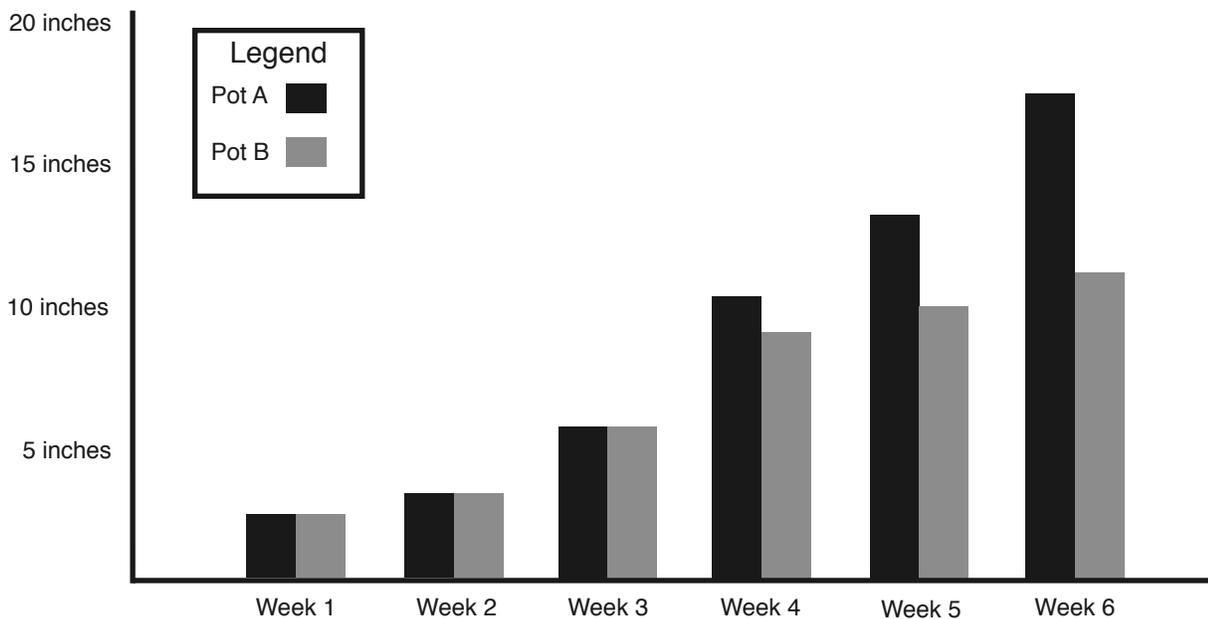
13. Some plants live for a few months. This period of time is called a life

- A. cycle
- B. process
- C. span
- D. structure

14. Ted performed a science experiment in which he did the following:

- He planted the same type of seeds in pots A and B.
- He used the same type of soil in each pot.
- He watered both pots and equal amount on the same days for three weeks.
- For the next three weeks, he watered both pots the same amount. However he skipped watering pot B every other time he watered pot A.

Each week, Ted observed the plants in both pots and measured how tall each plant had grown. Ted predicted that the plants in pot A would grow taller than the plants in pot B. He recorded his measurements in a bar graph shown below.



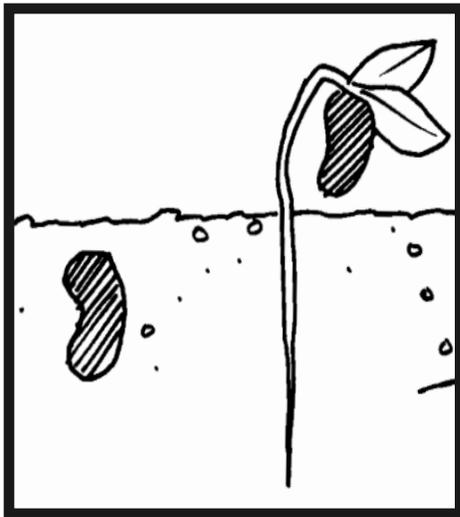
Name TWO tools Ted used to complete his experiment.

Does the data in the chart support Ted's prediction? Explain why or why not.

One of Ted's classmates does not think that Ted's results are valid. What should Ted's classmate do next?

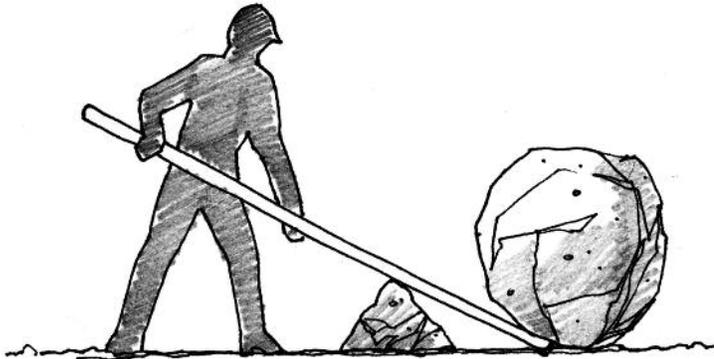
What are TWO conclusions can you make from reading the data in the bar graph?

15. The diagram below shows a plant during which stage of its life cycle?



- A. maturation
- B. germination
- C. reproduction
- D. death

16. The man in the illustration below has found an easier way to move a heavy rock.



Identify the simple machine being used.

Answer Sheet

1. (A) (B) (C) (D)
2. Extended Response
3. Extended Response
4. (A) (B) (C) (D)

5. (A) (B) (C) (D)
6. (A) (B) (C) (D)
7. (A) (B) (C) (D)
8. Extended Response

9. Extended Response
10. Extended Response
11. Extended Response
12. (A) (B) (C) (D)

13. (A) (B) (C) (D)
14. Extended Response
15. (A) (B) (C) (D)
16. Extended Response